FIG la 102 HOME NETWORK CPE CPE CABLE HOME MODEM 110 CPE -106 DHCP SERVER ISP 132 HEAD END 128 150 INTERNET -122 1130 KSP EXTERNAL NETWORKS

HOME ROUTER

F16 16

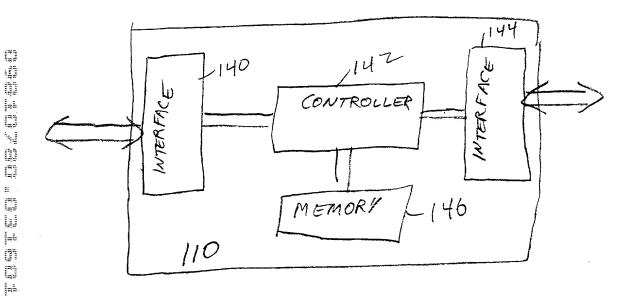
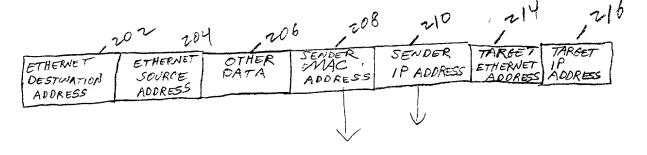


FIG.Z

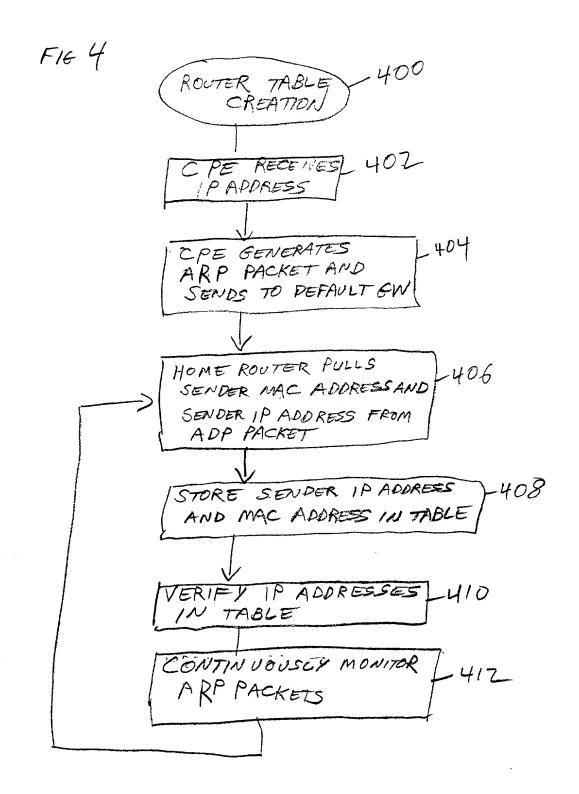
11 11 24.05 ...(2 4.10 31 14.05 15.00 15.0

H. M. M. Hand. B. San M. B. W. W. Waller Wood.

ARP PACKET 200



F16.3 DATA PACKET IP 300 SOURCE DE FAULT GW MC DESTINATION 18 DATA SOURCE IP MAC 304 308 310 302 306



	,502,504
	MAC ADDRESS   IP ADDRESS
CPE#1 CPE#2 CPE#3 CPE#1	24, 98. 214.56 56, 78, 32. 178 234, 44, 44, 98
50h	500

F16-6 PACKET ROUTING 4600 PROCESS FOR EACH RECEIVED PACKET 602 COMPARE DESTINATION IP ADDRESS WITH IPADDRESSES IN TABLE 604 606 ROUTE NO PACKET TO EXTERNAL NETWORK YES REPLACE MACADDRESS OF DESTINATION MACHINE WITH CORRESPONDING 608 IP ADDRÉSS PLACE PACKET BACK ON INTERNALNETWORK -612 FOR PACKETS RECEIVED FROM EXTERNAL NETWORK, TRANFER TO INTERNAL NETWORK